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=> d his 1 -

     (FILE 'MEDLINE, HCAPLUS, BIOSIS, EMBASE, WPIDS, SCISEARCH, AGRICOLA'
     ENTERED AT 14:06:23 ON 31 AUG 2004)
                SET DUPORDER FILE
L19           40 DUP REM L18 (29 DUPLICATES REMOVED)

=> d que l19
L1           495 SEA MCDOUGALD L?/AU
L2          1298 SEA FULLER A?/AU
L3          1736 SEA L1 OR L2
L4           317 SEA L3 AND EIMERIA
L5             6 SEA L4 AND VACCIN?
L6           187 SEA ACERVULINA AND MAXIMA AND MITIS AND TENELLA
L7            63 SEA L6 AND (VACCIN? OR IMMUNOGEN? OR IMMUNIS? OR IMMUNIZ?)
L8            47 SEA L7 AND OOCYST?
L9            33 SEA L7 AND SPORULAT?(5A) OOCYST?
L10           10 SEA L6 AND RATIO?
L11            3 SEA L7 AND MIXTURE#
L12           47 SEA L6 AND SPORULAT?(5A) OOCYST?
L13           13 SEA L12 AND (NUMBER OR QUATIT? OR QUANTIF? OR AMOUNT#)
L14           14 SEA L8 AND (NUMBER OR QUATIT? OR QUANTIF? OR AMOUNT#)
L15           10 SEA L6 AND PRECOCIOUS
L16           62 SEA L5 OR L9 OR L10 OR L11 OR (L12 OR L13 OR L14 OR L15)
L17           12 SEA L7 AND (50 OR 100 OR 500 OR 250 OR 100000 OR 500000 OR
                 10000 OR 200000 OR 20000 OR 50000)
L18           69 SEA L16 OR L17
L19           40 DUP REM L18 (29 DUPLICATES REMOVED)


=> d ibib abs l19 1-40

L19  ANSWER 1 OF 40     MEDLINE on STN                    DUPLICATE 2
ACCESSION NUMBER:   2004156224     MEDLINE
DOCUMENT NUMBER:    PubMed ID: 15049491
TITLE:              Immunization of broiler chicks by in ovo
                    injection of infective stages of Eimeria.
AUTHOR:             Weber F H; Genteman K C; LeMay M A; Lewis D O Sr; Evans N A
CORPORATE SOURCE:   Pfizer Animal Health, Veterinary Medicine R&D, 301
                    Henrietta Street, Kalamazoo, Michigan 49007, USA..
                    weberf@pfizer.com
SOURCE:             Poultry science, (2004 Mar) 83 (3) 392-9.
                    Journal code: 0401150. ISSN: 0032-5791.
PUB. COUNTRY:       United States
DOCUMENT TYPE:      Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:           English
FILE SEGMENT:       Priority Journals
ENTRY MONTH:        200407
ENTRY DATE:         Entered STN: 20040331
                    Last Updated on STN: 20040709
                    Entered Medline: 20040708
AB   Immunization of chickens by in ovo injection of infective stages
     of 5 species of Eimeria was investigated. Fertile Hubbard x Petersen
     broiler chicken eggs were injected through the air cell on d 18 of
     incubation with oocysts of E. acervulina, E. maxima,
     E. mitis, E. praecox, or E. brunetti. Injected doses of all
     species ranged from 1 x 10(2) to 1 x 10(6) sporulated
     oocysts per egg. Chicks receiving oocysts in ovo shed oocysts
     posthatch. After 2 wk in wire-floored cages, birds were given a challenge
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infection with the homologous Eimeria species. Chicks **immunized** by in ovo injection of oocysts had significantly reduced lesion scores, improved weight gain, or reduced oocyst output compared with their nonimmunized counterparts. In additional studies, eggs were injected with 1 x 10(5) sporozoites of E. **tenella**, E. **maxima**, or E. **acervulina** per egg. Sporozoites of E. **acervulina** were not infective for chick embryos when administered in phosphate-buffered saline, but if sporozoites were suspended in tissue culture medium when injected in ovo, hatched chicks shed oocysts with peak output occurring 3 to 4 d posthatch. Sporozoites of E. **maxima** and E. **tenella** were infective for 18-d-old embryos regardless of the vehicle. The results demonstrate that **immunization** of broiler chickens against several species of coccidia by in ovo injection of oocysts is feasible. The infectivity of sporozoites for 18-d-old chick embryos varied depending on the species of Eimeria and the vehicle in which the sporozoites were suspended prior to injection.

L19 ANSWER 2 OF 40 MEDLINE on STN DUPLICATE 5
ACCESSION NUMBER: 2003326733 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12850920
TITLE: Protective efficacy of a live attenuated anti-coccidial vaccine administered to 1-day-old chickens.
AUTHOR: Crouch C F; Andrews S J; Ward R G; Francis M J
CORPORATE SOURCE: Schering-Plough Animal Health Breakspear Road South Harefield, Uxbridge UB9 6LS Middlesex, UK.. colin.crouch@spcorp.com
SOURCE: Avian pathology : journal of the W.V.P.A, (2003 Jun) 32 (3) 297-304.
Journal code: 8210638. ISSN: 0307-9457.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: (CLINICAL TRIAL)
(CONTROLLED CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200309
ENTRY DATE: Entered STN: 20030715
Last Updated on STN: 20030917
Entered Medline: 20030916

AB The efficacy of a live attenuated anti-coccidial vaccine, Paracox-5, administered to 1-day-old chicks was investigated by assessing protection against changes in weight gain following virulent challenge. Vaccinated birds were challenged independently 28 days later with each of the component species (Eimeria **acervulina**, Eimeria **maxima**, Eimeria **mitis** or Eimeria **tenella**), and protection was demonstrated against associated reduction in weight gain and lesion formation. In addition, an improvement in bird performance, in terms of feed conversion **ratio**, was also observed following vaccination. Furthermore, under conditions designed to more closely mimic those in the field and using hatchery spray administration, protection against a mixed virulent challenge introduced by 'seeder birds' was demonstrated evenly across a flock of broiler birds within 21 days after vaccination. These data demonstrate that Paracox-5 vaccine will protect broiler chickens against the adverse effects on performance induced by Eimeria spp.

L19 ANSWER 3 OF 40 MEDLINE on STN DUPLICATE 6
ACCESSION NUMBER: 2001372632 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11429169
TITLE: **Quantification** of the crowding effect during

infections with the seven Eimeria species of the domesticated fowl: its importance for experimental designs and the production of **oocyst** stocks.

AUTHOR: Williams R B
CORPORATE SOURCE: Wellcome Research Laboratories, Hertfordshire, Berkhamsted, UK.. ray.williams@spcorp.com
SOURCE: International journal for parasitology, (2001 Aug) 31 (10) 1056-69.
Journal code: 0314024. ISSN: 0020-7519.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200109
ENTRY DATE: Entered STN: 20010924
Last Updated on STN: 20010924
Entered Medline: 20010920

AB The 'crowding effect' in avian coccidia, following administration of graded numbers of **sporulated oocysts** to naive hosts, is recognisable by two characteristics. First, increasing doses of **oocysts** give rise to progressively higher **oocyst** yields, until a level of infection is reached (the 'maximally producing dose') above which further dose increases result in progressive decreases in **oocyst** yields. Second, the **number** of **oocysts** produced per **oocyst** administered (the 'reproductive potential') tends to decrease as the **oocyst** dose is increased. The dose that gives the maximal reproductive potential is the 'crowding threshold' and doses exceeding this are 'crowded doses'. Graded doses of Eimeria **acervulina**, Eimeria brunetti, Eimeria **maxima**, Eimeria **mitis**, Eimeria necatrix, Eimeria praecox or Eimeria **tenella** were given to chickens of the same breed, sex and age, reared on the same diet, under identical management. The two characteristics of the crowding effect were demonstrated graphically and, by interpolation, the estimated crowding thresholds were 903, < or =16, 39, < or =14, < or =16, < or =16 or 72 **sporulated oocysts**, respectively, for the seven Eimeria species enumerated above. This is apparently the first report of definitive experiments to **quantify** a crowding effect in E. brunetti, E. **maxima**, E. **mitis**, E. necatrix and E. praecox. Maximum experimental reproductive potentials were considerably lower than the theoretical reproductive potentials for all seven species. The interaction between availability of host intestinal cells and immunity contributing to the crowding effect is discussed. Standard curves obtained under specified conditions should be used to estimate appropriate infective doses for experimental designs or in vivo production of **oocyst** stocks. For experiments on effects of chemotherapy or **immunisation** on **oocyst** production, an infective dose lower than the crowding threshold should be used. For efficient production of laboratory or factory **oocyst** stocks, the maximally producing dose (which is greater than the crowding threshold), should be used.

L19 ANSWER 4 OF 40 MEDLINE on STN DUPLICATE 7
ACCESSION NUMBER: 2002014461 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11417809
TITLE: Blackhead disease (Histomonas meleagridis) aggravated in broiler chickens by concurrent infection with cecal coccidiosis (**Eimeria** tenella).
AUTHOR: **McDougald L R**; Hu J
CORPORATE SOURCE: Department of Poultry Science, University of Georgia,

Athens 30602, USA.
SOURCE: Avian diseases, (2001 Apr-Jun) 45 (2) 307-12.
Journal code: 0370617. ISSN: 0005-2086.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200203
ENTRY DATE: Entered STN: 20020121
Last Updated on STN: 20020313
Entered Medline: 20020312

AB The effect of concurrent cecal coccidiosis infections on severity of Histomonas meleagridis (blackhead disease) in chickens was investigated in a series of experiments. Cecal lesions from H. meleagridis were severe in all inoculated control groups and did not appear to be affected by the introduction of **Eimeria** tenella infection. However, the severity of liver lesions and number of birds positive for liver lesions of H. meleagridis increased significantly with the presence of E. tenella. The increase was similar when 10(3) or 10(4) oocysts of E. tenella were given and was the same when oocysts were given at the same time as H. meleagridis or 4 days prior. The liver lesions increased directly as doses of H. meleagridis increased from 7.5 x 10(3) cells to 30, 100, or 300 x 10(3) when E. tenella was given along with H. melelagridis but not when H. meleagridis was given alone. Administration of a live coccidiosis **vaccine** containing very low levels of E. tenella also gave a significant boost to liver lesions but at a much lower level than that observed with larger doses of E. tenella. The positive relationship between infections of cecal coccidiosis and H. meleagridis in chickens suggests that such dual exposure may contribute to increased clinical outbreaks of blackhead disease in chickens under field conditions.

L19 ANSWER 5 OF 40 MEDLINE on STN DUPLICATE 9
ACCESSION NUMBER: 2000451337 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11007025
TITLE: Eimeria brunetti and Eimeria necatrix in chickens of Argentina and confirmation of seven species of Eimeria.
AUTHOR: Mattiello R; Boviez J D; McDougald L R
CORPORATE SOURCE: Department of Histology, Faculty of Veterinary Science, University of Buenos Aires, Argentina.
SOURCE: Avian diseases, (2000 Jul-Sep) 44 (3) 711-4.
Journal code: 0370617. ISSN: 0005-2086.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200101
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20010117

AB Ten poultry farms (broiler breeder pullets, layer pullets, and broilers) in the provinces of Entre Rios and Buenos Aires in Argentina were examined for presence of Eimeria spp. Litter samples obtained from flocks 7-11 wk old were taken to the laboratory for **oocyst** counting and **sporulation**, then concentrated for inoculation into coccidia-free chickens. Species were identified by prepatent period, oocyst size, location and appearance of lesions in the intestine, microscopic examination of mucosal smears, and histology (to confirm Eimeria brunetti). On this basis, Eimeria praecox was found in two samples, Eimeria **mitis** in two, Eimeria **acervulina** in nine,

Eimeria **maxima** in seven, Eimeria necatrix in three, Eimeria **tenella** in seven, and E. brunetti in four. These results confirm the presence of all seven recognized species of Eimeria in chickens in the Republic of Argentina.

L19 ANSWER 6 OF 40 MEDLINE on STN DUPLICATE 10
ACCESSION NUMBER: 1998392092 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9724880
TITLE: Epidemiological aspects of the use of live anticoccidial **vaccines** for chickens.
AUTHOR: Williams R B
CORPORATE SOURCE: Schering-Plough Animal Health, Middlesex, UK.
SOURCE: International journal for parasitology, (1998 Jul) 28 (7) 1089-98. Ref: 42
Journal code: 0314024. ISSN: 0020-7519.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199810
ENTRY DATE: Entered STN: 19990106
Last Updated on STN: 19990106
Entered Medline: 19981027

AB This review address the epidemiology (epizootiology) of coccidiosis in commercial chickens with emphasis on the effects on the use of live **vaccines**. Surveys suggest that all seven valid species of chicken coccidia (Eimeria **acervulina**, Eimeria brunetti, Eimeria **maxima**, Eimeria **mitis**, Eimeria necatrix, Eimeria praecox and Eimeria **tenella**) are ubiquitous. All species are pathogenic to various extents. New results are presented on the pathogeneicities of E. **acervulina**, E. **mitis** and E. Praecox. Unless ingested by chickens, oocysts in poultry-house litter may die after about 3 weeks. **Oocyst sporulation** may be better in drier, rather than wetter, litter. Whether sporulated or not, up to 20% of ingested oocysts may pass undamaged through a chicken's intestine. The excreted, **sporulated oocysts** can be immediately reingested to initiate an infection; the unsporulated **oocysts** can still **sporulate** after passing through the intestine. The seven species differ in their times of appearance in commercial flock; hence particular **vaccines** may be designed for rearing standard broilers for up to about 6 weeks or for breeding stock. Attenuated, **precocious** lines of Eimeria in **vaccines** have low reproductive potentials, thus avoiding crowding, developing optimally, and stimulating immune response with minimal tissue damage. Cross-immunity between Eimeria species is probably minimal. There is reciprocity between the immune status of chicken and their excretion of oocysts for each species, ensuring continual stimulation of immune responses in birds on litter. Paracox **vaccine**, comprising all seven Eimeria species, is shown here to stimulate immunity to each of them independently. Total oocyst accumulation in litter following Paracox **vaccination** at 1 week comprises a small peak of **vaccinal** oocysts at 2-4 weeks, then a higher peak of the local virulent population at 4-7 weeks, which rapidly wanes. The attenuated drug-sensitive **vaccinal** oocysts probably interbreed with the corresponding wild species, reducing both virulence and drug-resistance in the local population. Anticoccidial **vaccines** may not induce complete immunity in chickens with lowered immunocompetence due to stressors, including certain viral disease.

Future development of live **vaccines** for standard broilers may be expected in the relatively short term. The useful lives of anticoccidial drugs might be extended by rotating them with live **vaccines**.

L19 ANSWER 7 OF 40 MEDLINE on STN DUPLICATE 11
ACCESSION NUMBER: 97445487 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9300372
TITLE: Monoclonal antibodies inhibiting invasion of cultured cells by Eimeria **tenella** sporozoites.
AUTHOR: Uchida T; Kikuchi K; Takano H; Ogimoto K; Nakai Y
CORPORATE SOURCE: Department of Animal Microbiology and Parasitology, Tohoku University, Sendai, Japan.
SOURCE: Journal of veterinary medical science / the Japanese Society of Veterinary Science, (1997 Aug) 59 (8) 721-3. Journal code: 9105360. ISSN: 0916-7250.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199801
ENTRY DATE: Entered STN: 19980122
Last Updated on STN: 19980122
Entered Medline: 19980106

AB Monoclonal antibodies (MoAbs) secreted by 12 hybridomas and reactive with the surface antigens of E. **tenella** sporozoites were produced. These MoAbs designated as KC-1 to KC-12 were characterized as IgG3 kappa. In Western blot analysis, these MoAbs reacted with only one polypeptide band of sporozoite antigens having a molecular mass of 25 kDa. All the MoAbs were reactive with sporozoites, trophozoites, immature and mature first generation schizonts, first generation merozoites, and the interior structure of **sporulating oocysts** of E. **tenella** , however, not with any of the methanol-fixed sporozoites of E. **acervulina**, E. **mitis**, E. **maxima**, E. brunetti, E. necatrix and E. praecox. Invasion of primary culture of chicken kidney cells by E. **tenella** sporozoites was significantly inhibited by several of the MoAbs. These results suggest that these MoAbs recognizing the E. **tenella**-specific surface molecule are involved in the invasion of sporozoites into host cells.

L19 ANSWER 8 OF 40 MEDLINE on STN DUPLICATE 13
ACCESSION NUMBER: 94089557 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8265494
TITLE: Anticoccidial efficacy of semduramicin. 1. Evaluation against field isolates by dose titration in battery tests.
AUTHOR: McKenzie M E; Conway D P; Logan N B; Wilkins C P; Chappel L R
CORPORATE SOURCE: Central Research Division, Pfizer Inc., Terre Haute, Indiana 47808.
SOURCE: Poultry science, (1993 Nov) 72 (11) 2052-7. Journal code: 0401150. ISSN: 0032-5791.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199401
ENTRY DATE: Entered STN: 19940209
Last Updated on STN: 19940209
Entered Medline: 19940127

AB Semduramicin (AVIAX), a novel polyether ionophore, was titrated in a

series of five battery tests at 20, 25, and 30 ppm in feed to determine the optimum level for use. Twelve-day-old broiler chicks were medicated for 48 h prior to inoculation in each 9-day test. The inocula included monospecific field isolates of Eimeria **tenella**, Eimeria brunetti, Eimeria necatrix, and Eimeria **maxima**, and a mixture of these species with Eimeria **acervulina** and Eimeria **mitis**. The numbers of oocysts inoculated were selected after titration of each species and the mixture of species. All three concentrations of semduramicin significantly ($P < .05$) reduced coccidiosis mortality and lesion scores and achieved lower feed:gain **ratios** and greater weight gains than the infected, unmediated treatments. A concentration of 25 ppm semduramicin was determined to be optimal based on improved lesion control compared with 20 ppm and improved weight gain compared with 30 ppm.

L19 ANSWER 9 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2004:513555 HCAPLUS
DOCUMENT NUMBER: 141:52851
TITLE: Coccidial **vaccine** and methods of preparation and uses thereof
INVENTOR(S): **McDougald, Larry R.; Fuller, Alberta L.**
PATENT ASSIGNEE(S): University of Georgia Research Foundation, Inc., USA
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2004052393	A1	20040624	WO 2003-US38903		20031208
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD					
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
US 2004120973	A1	20040624	US 2003-730206		20031208
PRIORITY APPLN. INFO.:			US 2002-432298P	P	20021209

AB The present invention relates to an attenuated **vaccine** for coccidiosis in chickens prepared from 4 attenuated **Eimeria** species: E. **acervulina**, E. **maxima**, E. **mitis**, and E. **tenella** consisting of **sporulated oocysts** at different dosages and/or **ratios**. The **vaccine** is efficacious in the face of virulent challenge, reduced cross-infection with Clostridium species, and has better bird performance as defined by feed conversion rates; it is similar to or superior to other anticoccidial drugs in stimulating protective immunity against coccidiosis, preferably in broiler chickens. The **vaccine** was compared to a USDA approved live oocyst **vaccine** (Coccivac-B) and a conventional anti-coccidial drug, Salinomycin.

L19 ANSWER 10 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2003:42440 HCAPLUS
DOCUMENT NUMBER: 138:118508
TITLE: A cDNA for a **250** kDa antigen from sporozoites/merozoites of Eimeria **maxima** and its use in **vaccines** against coccidiosis
INVENTOR(S): Witcombe, David; Smith, Nicholas C.; Wallach, Michael
PATENT ASSIGNEE(S): Australia
SOURCE: PCT Int. Appl., 198 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003004684	A2	20030116	WO 2002-US21237	20020703
WO 2003004684	C2	20031218		
WO 2003004684	A3	20040521		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-303670P P 20010706
AB A cDNA encoding a **250** kDa antigen found in sporozoites and merozoites of Eimeria **maxima** is cloned for use in manufacture of the antigens for use in **vaccines** against coccidiosis. Immunodominant epitopes of the antigen and cDNAs encoding them are also disclosed. The antigen can be used in **vaccines** to give protection against Eimeria **tenella**, Eimeria **maxima**, Eimeria **acervulina**, Eimeria necatrix, Eimeria praecox, Eimeria **mitis** or Eimeria brunetti, or a microorganism expressing an immunol. cross-reactive antigen. The antigen may be used in combination with gametocyte antigens. The antigen was identified by Western blots using antisera from chickens and a cDNA was cloned by PCR using amino acid sequence-derived primers and RACE. When used in **vaccines**, the protein lowered oocyst yields from chicken by up to 74%.

L19 ANSWER 11 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 2003:814636 HCAPLUS
DOCUMENT NUMBER: 140:211451
TITLE: A multiplex PCR assay for the simultaneous detection and discrimination of the seven Eimeria species that infect domestic fowl
AUTHOR(S): Fernandez, S.; Pagotto, A. H.; Furtado, M. M.; Katsuyama, A. M.; Madeira, A. M. B. N.; Gruber, A.
CORPORATE SOURCE: Departamento de Patologia, Faculdade de Medicina Veterinaria e Zootecnia -USP, Sao Paulo, 05508-000, Brazil
SOURCE: Parasitology (2003), 127(4), 317-325
CODEN: PARAAE; ISSN: 0031-1820

PUBLISHER: Cambridge University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB This study reports the development of a novel multiplex PCR assay based on SCAR (Sequence-Characterized Amplified Region) markers for the simultaneous diagnosis of the 7 Eimeria species that infect domestic fowl. Primer pairs specific for each species were designed in order to generate a ladder of amplification products ranging from 200 to 811 bp. Sensitivity tests for each species were carried out, showing a detection threshold of 1-5 pg, which corresponds approx. to 2-8 **sporulated oocysts**. Distinct isolates of the 7 Eimeria species from different geog. sources were tested and successfully detected by the assay. All the species were amplified homogeneously, whether or not one of them was present in a high quantity, indicating that there was no cross-interference. The assay was also tested with different sources of Taq DNA polymerase and thermocycler models, confirming the high reproducibility of the reaction. The economy of consumables and labour represented by a single-tube reaction greatly facilitates the mol. diagnosis of a large number of samples, making it appropriate for field epizootiol. surveys. We propose the use of this multiplex PCR assay as a rapid and cost-effective diagnostic method for the detection and discrimination of the 7 Eimeria species that infect domestic fowl.
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 12 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 8
ACCESSION NUMBER: 2000:608605 HCAPLUS
DOCUMENT NUMBER: 133:213049
TITLE: Method for the purification, recovery, and **sporulation** of coccidial cysts and **oocysts**
INVENTOR(S): Conkle, Harold N.; Blonigen, Scott J.; Werner, Timothy M.; Shultz, Joseph E.; Kilanowski, David R.; Tewksbury, Ted L.; Monzyk, Bruce; Cucksey, Chad M.; Weber, Fred H.; McArthur, Hamish A. I.
PATENT ASSIGNEE(S): Pfizer, Inc., USA; et al.
SOURCE: PCT Int. Appl., 18 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000050072	A2	20000831	WO 2000-US4733	20000225
WO 2000050072	A3	20010531		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1157094	A2	20011128	EP 2000-908787	20000225
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

BR 2000008508	A	20020205	BR 2000-8508	20000225
JP 2002538784	T2	20021119	JP 2000-600682	20000225
AU 769153	B2	20040115	AU 2000-30065	20000225
ZA 2001006993	A	20021125	ZA 2001-6993	20010823
PRIORITY APPLN. INFO.:			US 1999-122160P	P 19990226
			WO 2000-US4733	W 20000225

AB A **vaccine** for in ovo **vaccination** against avian coccidiosis produced by a method including obtaining the coccidial oocysts from a fecal suspension, homogenizing the fecal suspension, separating the oocysts from the fecal debris by either salt flotation using sodium sulfate or gas flotation using air, **sporulating** the **oocysts** using hydrogen peroxide and air sparging, bleaching the **sporulated oocysts**, washing the bleached **oocysts**, concentrating the sterile washed oocysts and combining the concs. of various species of coccidial oocysts, and producing a **vaccine**. The method in whole or in part can be applied to other kinds of encysted protozoa to produce **vaccines** for various types of animals.

L19 ANSWER 13 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:646425 HCAPLUS
DOCUMENT NUMBER: 125:284874
TITLE: Polysaccharide-based gel form of a **vaccine**
INVENTOR(S): Lee, Eng-Hong
PATENT ASSIGNEE(S): Can.
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9625951	A1	19960829	WO 1996-CA100	19960221
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE				
CA 2169987	AA	19960822	CA 1996-2169987	19960221
CA 2169987	C	19990202		
AU 9646609	A1	19960911	AU 1996-46609	19960221
AU 701890	B2	19990211		
EP 812213	A1	19971217	EP 1996-902194	19960221
EP 812213	B1	20030813		
R: DE, DK, ES, FR, GB, IT, NL, SI, LT, LV				
BR 9607462	A	19971223	BR 1996-7462	19960221
CN 1181705	A	19980513	CN 1996-193332	19960221
CN 1083279	B	20020424		
ES 2205014	T3	20040501	ES 1996-902194	19960221
PRIORITY APPLN. INFO.:			US 1995-390956	A 19950221
			WO 1996-CA100	W 19960221

AB A gel form of a live **vaccine** comprises approx. 1.5-5.0% of a temperature setting edible polysaccharide gelling agent having suspended therein sufficient levels of live organisms, i.e. oocysts of Eimeria, to provide for **immunization** of a poultry hatchling flock. A **vaccine** was prepared by first dissolving 5 g of κ-carrageenan

Bengel MB 910 in 200 mL of hot water in a container; then 200 mL of a aqueous solution containing **500** oocysts/mL of a mixture of Eimeria **acervulina**, E. **maxima**, and E **tenella** was added to this solution and mixed. The solution was then poured into a plastic watering dish and allowed to cool and gel at 4° resulting in a gel form of the **vaccine** containing 1.25% Bengel MB 910 and **250** oocysts/mL.

L19 ANSWER 14 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1995:328604 HCAPLUS
DOCUMENT NUMBER: 122:125338
TITLE: PCR-based methods for detecting Eimeria species AB oligonucleotide primers and probes for detecting infection by individual species of Eimeria are derived from the small subunit rRNA.
PATENT ASSIGNEE(S): Merck and Co., Inc., USA
SOURCE: Jpn. Kokai Tokkyo Koho, 59 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06225796	A2	19940816	JP 1992-181509	19920529
ZA 9203886	A	19930224	ZA 1992-3886	19920527
PRIORITY APPLN. INFO.:			US 1991-707356	19910529
			US 1992-879586	19920512

AB These probes are used as diagnostic reagents and in the assay of viability of components of multivalent coccidiosis **vaccines**. Genes from **sporulated oocysts** were cloned by PCR amplification using primers derived from strongly conserved regions of the rRNA. Sequences were compared to find oligonucleotides distinct to them and these sequences used for probes. Use of these probes to detect sequences from a number of species in a polyvalent **vaccine** was demonstrated.

L19 ANSWER 15 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1994:491770 HCAPLUS
DOCUMENT NUMBER: 121:91770
TITLE: **Vaccine** for protection against coccidiosis in poultry
INVENTOR(S): Bedrnik, Petr; Kucera, Jan; Firmanova, Anna
PATENT ASSIGNEE(S): Vyzkumny Ustav pro Biofaktory a Vet.Leciva, Czech Rep.
SOURCE: Czech., 11 pp.
CODEN: CZXXA9
DOCUMENT TYPE: Patent
LANGUAGE: Czech
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 277353	B6	19930113	CS 1990-6316	19901217
PRIORITY APPLN. INFO.:			CS 1990-6316	19901217

AB **Vaccines** for protection against coccidiosis induced by a number of coccidial species in the genus Eimeria can be prepared with oocysts from strains whose virulence has been attenuated. For example, a **vaccine** can be prepared in which a single **vaccination** dose

contains **100**-1000 oocysts of Eimeria **tenella** and **100**-600 oocysts of E. **acervulina**; the E. **tenella** line is attenuated by adaptation to growth in chick embryos and prolonged passage, and the E. **acervulina** line is attenuated by shortening of the life cycle. According to the invention, oral **vaccines** can be formulated also for protection against E. **maxima**, E. brunetti, E. **mitis**, E. praecox, and E. necatrix.

L19 ANSWER 16 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1993:141166 HCAPLUS
DOCUMENT NUMBER: 118:141166
TITLE: Probes derived from Eimeria **acervulina** small subunit ribosomal RNA for diagnosis of infection
INVENTOR(S): Dashkevicz, Michael; Feighner, Scott D.; Chakraborty, Prasanta R.; Liberator, Paul A.; Elbrecht, Alex; P-Juchelka, Helen
PATENT ASSIGNEE(S): Merck and Co., Inc., USA
SOURCE: Eur. Pat. Appl., 91 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 516396	A1	19921202	EP 1992-304797	19920527
EP 516396	B1	19960828		
R: CH, DE, FR, GB, IT, LI, NL				
US 5298613	A	19940329	US 1992-879644	19920512
PRIORITY APPLN. INFO.:			US 1991-706817	19910529
			US 1992-879644	19920512

AB Probes useful for detection of infection by individual species of Eimeria are derived from the small subunit rRNA. These probes are used as diagnostic reagents and in the assay of viability of components of multivalent coccidiosis **vaccines**. Genes from **sporulated oocysts** were cloned by PCR amplification using primers derived from strongly conserved regions of the rRNA. Sequences were compared to find oligonucleotides distinct to them, and these sequences used for probes. The use of these probes to detect sequences from a number of species in a polyvalent **vaccine** is demonstrated.

L19 ANSWER 17 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1993:95590 HCAPLUS
DOCUMENT NUMBER: 118:95590
TITLE: Eimeria brunetti-specific DNA probes derived from gene for small subunit rRNA
INVENTOR(S): Dashkevicz, Michael; Chakraborty, Prasanta R.; Elbrecht, Alex; Feighner, Scott D.; Liberator, Paul A.; P-Juchelka, Helen
PATENT ASSIGNEE(S): Merck and Co., Inc., USA
SOURCE: Eur. Pat. Appl., 77 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

EP 516391	A2	19921202	EP 1992-304789	19920527
EP 516391	A3	19930714		
EP 516391	B1	19960918		
R: CH, DE, FR, GB, IT, LI, NL				
US 5278298	A	19940111	US 1992-879584	19920512
PRIORITY APPLN. INFO.:			US 1991-706717	19910529
			US 1992-879584	19920512

AB Eimeria brunetti-specific DNA probes comprising divergent DNA sequences of 10-**50** nucleotides that are complementary to a small subunit rRNA gene of E. brunetti are described. The probes can hybridize to the gene under stringent conditions. The probes can be used to differentiate E. brunetti from E. **acervulina**, E. **maxima**, E. **mitis**, E. necatrix, E. praecox, and E. **tenella**. The species-specific probes were used to evaluate the infectivity of a live **vaccine** containing monovalent or mixed inoculum of Eimeria oocytes that were administered to chickens.

L19 ANSWER 18 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1993:402467 HCAPLUS
DOCUMENT NUMBER: 119:2467
TITLE: Probes derived from Eimeria **mitis** small subunit ribosomal RNA for diagnosis of infection and efficacy of polyvalent **vaccines**
INVENTOR(S): Dashkevicz, Michael; Chakraborty, Prasanta R.; Elbrecht, Alex; Feighner, Scott D.; Liberator, Paul A.; P-Juchelka, Helen
PATENT ASSIGNEE(S): Merck and Co., Inc., USA
SOURCE: Eur. Pat. Appl., 79 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 516386	A1	19921202	EP 1992-304782	19920527
EP 516386	B1	19960904		
R: CH, DE, FR, GB, IT, LI, NL				
US 5359050	A	19941025	US 1992-879640	19920512
AU 9217249	A1	19921203	AU 1992-17249	19920528
PRIORITY APPLN. INFO.:			US 1991-707355	19910529
			US 1992-879640	19920512
			US 1992-897640	19920512

AB Probes useful for detection of infection by Eimeria **mitis** are derived from the small subunit rRNA. These probes are used as diagnostic reagents and in the assay of viability of components of multivalent coccidiosis **vaccines**. Genes from **sporulated oocysts** were cloned by PCR amplification using primers derived from strongly conserved regions of the rRNA. Sequences were compared to find oligonucleotides distinct to them and these sequences used for probes. The use of these probes to detect sequences from a number of species in a polyvalent **vaccine** is demonstrated.

L19 ANSWER 19 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1993:141167 HCAPLUS
DOCUMENT NUMBER: 118:141167
TITLE: Probes derived from Eimeria **tenella** small

subunit ribosomal RNA for diagnosis of infection
INVENTOR(S): Dashkevicz, Michael; Chakraborty, Prasanta R.; Elbrecht, Alex; Feighner, Scott D.; Liberator, Paul A.; P-Juchelka, Helen
PATENT ASSIGNEE(S): Merck and Co., Inc., USA
SOURCE: Eur. Pat. Appl., 79 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 516385	A1	19921202	EP 1992-304781	19920527
EP 516385	B1	19960904		
R: CH, DE, FR, GB, IT, LI, NL				
US 5563256	A	19961008	US 1992-879469	19920512
PRIORITY APPLN. INFO.:			US 1991-707362	19910529
			US 1992-879469	19920512

AB Probes useful for detection of infection by individual species of Eimeria are derived from the small subunit rRNA. These probes are used as diagnostic reagents and in the assay of viability of components of multivalent coccidiosis **vaccines**. Genes from **sporulated oocysts** were cloned by PCR amplification using primers derived from strongly conserved regions of the rRNA. Sequences were compared to find oligonucleotides distinct to them and these sequences used for probes. The use of these probes to detect sequences from a number of species in a polyvalent **vaccine** is demonstrated.

L19 ANSWER 20 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1993:162444 HCAPLUS
DOCUMENT NUMBER: 118:162444
TITLE: Probes derived from Eimeria praecox small subunit ribosomal RNA for diagnosis of infection
INVENTOR(S): Dashkevicz, Michael; Feighner, Scott D.; Chakraborty, Prasanta R.; Liberator, Paul A.; Elbrecht, Alex; P-Juchelka, Helen
PATENT ASSIGNEE(S): Merck and Co., Inc., USA
SOURCE: Eur. Pat. Appl., 92 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 516384	A1	19921202	EP 1992-304780	19920527
EP 516384	B1	19960918		
R: CH, DE, FR, GB, IT, LI, NL				
US 5449768	A	19950912	US 1992-879594	19920512
PRIORITY APPLN. INFO.:			US 1991-707360 A	19910529
			US 1992-879594 A	19920512

AB Probes useful for detection of infection by individual species of Eimeria are derived from the small subunit rRNA. These probes are used as diagnostic reagents and in the assay of viability of components of multivalent coccidiosis **vaccines**. Genes from **sporulated oocysts** were cloned by PCR amplification using primers derived

from strongly conserved regions of the rRNA. Sequences were compared to find oligonucleotides distinct to them and these sequences used for probes. The use of these probes to detect sequences from a number of species in a polyvalent **vaccine** is demonstrated.

L19 ANSWER 21 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1993:141168 HCAPLUS
DOCUMENT NUMBER: 118:141168
TITLE: Eimeria **maxima**-specific DNA probes derived from gene for small subunit rRNA
INVENTOR(S): Dashkevicz, Michael; Feighner, Scott D.; Chakraborty, Prasanta R.; Liberator, Paul A.; Albrecht, Alex; P-Juchelka, Helen
PATENT ASSIGNEE(S): Merck and Co., Inc., USA
SOURCE: Eur. Pat. Appl., 91 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 516383	A2	19921202	EP 1992-304779	19920527
EP 516383	A3	19930714		
EP 516383	B1	19960904		
R: CH, DE, FR, GB, IT, LI, NL				
US 5266689	A	19931130	US 1992-879647	19920512
CA 2069588	AA	19921130	CA 1992-2069588	19920526
ZA 9203883	A	19930127	ZA 1992-3883	19920527
AU 9217244	A1	19921203	AU 1992-17244	19920528
JP 06125793	A2	19940510	JP 1992-181512	19920529
JP 2546578	B2	19961023		
PRIORITY APPLN. INFO.:			US 1991-706628	19910529
			US 1992-879647	19920512

AB An Eimeria **maxima**-specific DNA probe comprising divergent DNA sequences of 10-**50** nucleotides that are complementary to a small subunit rRNA gene of E. **maxima** is described. The probe can hybridize to the gene under stringent conditions. The probe can be used to differentiate E.**maxima** from E. **acervulina**, E. brunetti , E. **mitis**, E. necatrix, E. praecox, and E. **tenella**. The species-specific probes were used to evaluate the infectivity of a live **vaccine** containing monovalent or mixed inocula of Eimeria oocytes that were administered to chickens.

L19 ANSWER 22 OF 40 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN DUPLICATE 12
ACCESSION NUMBER: 1996:287994 BIOSIS
DOCUMENT NUMBER: PREV199699010350
TITLE: Paracox: An attenuated **vaccine** against coccidiosis of chickens.
AUTHOR(S): Williams, Ray B.
CORPORATE SOURCE: Mallinckrodt Veterinary Ltd., Uxbridge UB9 6LS, UK
SOURCE: Magyar Allatorvosok Lapja, (1996) Vol. 51, No. 1, pp. 30-33.
CODEN: MGALA5. ISSN: 0025-004X.
DOCUMENT TYPE: Article
LANGUAGE: Hungarian
ENTRY DATE: Entered STN: 25 Jun 1996

Last Updated on STN: 25 Jun 1996

AB Paracox **vaccine** contains live, attenuated, **sporulated** **oocysts** of seven Eimeria species (E. **acervulina**, E. brunetti, E. **maxima** (two lines), E. **mitis**, E. necatrix, E. praecox and E. **tenella**) live in chickens in form of a stable suspension. The preparation can be used equally in broilers, laying and broiler parent pair flocks reared on the floor, namely in a single dose applied via drinking water at the age of 5 to 9 days. The immunity obtained ensure a continuous protection for the fowls both during the growing and the laying periods. In case of **immunized** fowls, it was never necessary to apply a medication - while that was necessary in 40% of the control flocks originally also medicated - presuming that the recirculation of attenuated **oocysts** was ensured by bedding: the presence of **oocysts** in the bedding during the lifetime of the flock is not only expectable but also necessary because the protection in owing to the **vaccine** lines developing in the gut of chickens. Under farm conditions, the **number** of chickens with organic alteration was zero or no more than 4% in the flocks **immunized** in this manner. On the other hand, the percentage of such chickens was as high as 30% in the control flocks fed with medicated feed. Paracox is safe, without any application symptom, even it does not influence unfavourably the progress of body mass gain in the animals. The preparation is sterile, however it is also tested for the contamination by viruses, mycoplasmas, bacteria and fungi. The **vaccine** lines are not drug resistant thus mixing of any anticoccidial drugs in the feed should continuously be restrained in case of flocks to be **vaccinated**. Besides, application of any kind of medicaments with a more significant coccidiostatic or coccidiocid effect should be avoided - if possible - one month after **vaccination**.

L19 ANSWER 23 OF 40 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

ACCESSION NUMBER: 2000:337687 BIOSIS
DOCUMENT NUMBER: PREV200000337687
TITLE: Natural infection with Eimeria species (Ampicomplexa: Eimeriidae) in indigenous fowls of Hyderabad District of Sindh province (Pakistan).
AUTHOR(S): Khan, Rizwana M. [Reprint author]; Shaikh, Azra Anjum [Reprint author]; Khan, Muhammad Munif [Reprint author]
CORPORATE SOURCE: Parasitology Laboratory, Department of Zoology, University of Sindh, Jamshoro, Pakistan
SOURCE: Pakistan Journal of Zoology, (2000) Vol. 32, No. 1, pp. 11-14. print.
CODEN: PJZOAN. ISSN: 0030-9923.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 10 Aug 2000
Last Updated on STN: 7 Jan 2002

AB During September 1994 to December 1997, 395 guts of indigenous fowls from Hyderabad District of Sindh province were examined for natural infection with Eimeria species. Six species of Eimeria (E. **acervulina**, E. **maxima**, E. **mitis**, E. necatrix, E. praecox and E. **tenella**) were recorded from different parts of the gut. E. **tenella** was found to be more prevalent as compared to others. Different shapes of **sporulated** and unsporulated **oocysts** were observed for each species of Eimeria. Largest size of oocyst was recorded for E. **maxima** and smallest for E. **mitis**. There was no significant difference in the size of **sporulated** and unsporulated **oocysts** of any species of Eimeria. Sporulation

time for E. **maxima** was longest.

L19 ANSWER 24 OF 40 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
ACCESSION NUMBER: 1996:287993 BIOSIS
DOCUMENT NUMBER: PREV199699010349
TITLE: Biological principles of live, attenuated **vaccines**
.
AUTHOR(S): Shirley, Martin W.
CORPORATE SOURCE: Inst. Animal Health, Compton Lab., Compton, Nr Newbury, Berks RG20 7NN, UK
SOURCE: Magyar Allatorvosok Lapja, (1996) Vol. 51, No. 1, pp. 23-29.
CODEN: MGALA5. ISSN: 0025-004X.
DOCUMENT TYPE: Article
LANGUAGE: Hungarian
ENTRY DATE: Entered STN: 25 Jun 1996
Last Updated on STN: 25 Jun 1996

AB All the live **vaccines** for controlling avian coccidiosis contain **sporulated oocysts**. The two **vaccines** introduced for the first time, Coccivac (Mallinckrodt Veterinary) and Immucox (Vetech Laboratories, Canada) **vaccines** contain oocysts of coccidium populations of virulent type, i.e. the natural virulence and/or multiplication of which was not modified in no way. In spite of that, the recently developed **vaccines** - commercialized under the names Paracox (Mallinckrodt Veterinary) and Livacox (Biopharm, Research Institute of Biopharmacy and Veterinary Drugs) - contain such new populations that are characterized by significantly attenuated virulence and decreased reproductive potential. These lines were obtained from virulent parent lines by serial passages in eggs or by repeated selections in chickens directed onto the **precocious** (faster) finishing of developmental cycles. The latest method is the most effective way because it made possible to obtain attenuated populations in case of all the seven Eimeria species infecting chickens. As compared to the virulent parent lines, developmental cycles of **precocious** lines are characterized by a shorter prepatent period, and further, the oocyst production decreased significantly after having eliminated the late population(s) of schizonts. In addition to this, the intestinal wall damaging effect is significantly decreased while the **immunizing** ability remained protecting against a newer infection with the same species. Owing to the high antigenic differences observed within the E. **maxima** species, **precocious** lines were selected from two virulent strains and both are included into the Paracox **vaccine**. The greatest advantage of **vaccines** based on attenuated (low virulent) populations is that they ensure a more broader safety zone than the **vaccines** containing virulent parasites. The present review can be divided into the following 4 topics: Parasites, immunity and **vaccines** - introduction. The two methods used for the isolation of parasites included into the **vaccines**. Main biological characteristics of attenuated parasites (early maturing, **precocious** lines, illustrated by the example of E. **tenella** and E. **maxima** species). Field application of attenuated **vaccines**. WILLIAMS' and BEDRNIK's reports give a more detailed overview about the field application.

L19 ANSWER 25 OF 40 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
ACCESSION NUMBER: 1992:238281 BIOSIS
DOCUMENT NUMBER: PREV199293126306; BA93:126306

TITLE: PURIFICATION OF EIMERIA MEROZOITES FROM INTESTINAL CONTENTS BY DE-52 ANION EXCHANGE CHROMATOGRAPHY.
AUTHOR(S): KIM K-S [Reprint author]; LEE H-S; CHUNG G-S; CHOI S-H; KIM S-H; NAMGOONG S
CORPORATE SOURCE: VET RES INST, RDA, ANYANG, KOREA
SOURCE: Research Reports of the Rural Development Administration (Suweon), (1991) Vol. 33, No. 3 VET, pp. 21-24. ISSN: 1013-9397.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: KOREAN
ENTRY DATE: Entered STN: 10 May 1992
Last Updated on STN: 1 Jul 1992

AB An anion exchange column of DE-52 was used to purify Eimeria merozoites from intestinal contents of chicken inoculated with **sporulated oocysts** of Eimeria spp. Of 5 species of Eimeria tested, the recovery rate of merozoite was higher in Eimeria spp. of which the size of oocyst is small: the recoveries were 18.4%, and 17.1% in E. **mitis** , and E. acevulina, and followed by each 13.2% in E. brunetti, and E. **tenella** while that in E. **maxima** was 10.0%, respectively.

L19 ANSWER 26 OF 40 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
ACCESSION NUMBER: 1991:207314 BIOSIS
DOCUMENT NUMBER: PREV199191110539; BA91:110539
TITLE: STUDIES ON SPOROZOITES EXCYSTATION OF DIFFERENT SPECIES OF CHICKEN COCCIDIA IN-VITRO.
AUTHOR(S): KIM K-S [Reprint author]; LEE H-S; CHUNG G-S; KWON J-H; CHOI S-H; YOUN H-J; KIM S-H; NAMGOONG S
CORPORATE SOURCE: VETERINARY RESEARCH INST, RDA, ANYANG, KOREA
SOURCE: Research Reports of the Rural Development Administration (Suweon), (1990) Vol. 32, No. 3 VET, pp. 29-34. ISSN: 1013-9397.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: KOREAN
ENTRY DATE: Entered STN: 2 May 1991
Last Updated on STN: 2 May 1991

AB To obtain large quantities of Eimeria sporozoites for biochemical, immunological and in vitro cultivation studies, **sporulated oocysts** were ground mechanically in a motor driven (800rpm)-Teflon tissue homogenizer, which were subsequently treated with sodium taurodeoxycholate (ST)-crude trypsin (CT) excystating solution to release the sporozoites. Out of 5 species of Eimeria tested, the larger oocysts the species have, the more rapidly sporocysts of them were released; 93.7% of sporocysts of E. **maxima** were released after 4 minutes of grinding, 93.8% E. brunetti after 6 min, 94.2% of E. **tenella** after 8 min, 89.3% E. **acervulina** after 10 min, and 94.2% E. **mitis** after 10 min. In sporozoite excystation efficacy, Eimeria species developing in the anterior of the small intestine were superior to those living in the lower intestine or cecum; 88.9% of sporozoites of E. **acervulina** were excystated in 4% ST after 20 minutes of incubation, 71.6% E. **mitis** in 3% ST-30 min, 57.2% E. **maxima** in 2% ST-30 min, 22.7% E. brunetti in 3% ST-20 min, and 38.8% E. **tenella** in 1% ST-50 min.

L19 ANSWER 27 OF 40 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
ACCESSION NUMBER: 1990:52058 BIOSIS

DOCUMENT NUMBER: PREV199089029422; BA89:29422
TITLE: CHARACTERIZATION OF COCCIDIAL PROTEINS BY TWO-DIMENSIONAL SDS POLYACRYLAMIDE GEL ELECTROPHORESIS.
AUTHOR(S): SUTTON C A [Reprint author]; SHIRLEY M W; WISHER M H
CORPORATE SOURCE: DEP PATHOL, UNIV CAMBRIDGE, TENNIS COURT ROAD, CAMBRIDGE CB2 1QP, UK
SOURCE: Parasitology, (1989) Vol. 99, No. 2, pp. 175-188. CODEN: PARAAE. ISSN: 0031-1820.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 11 Jan 1990
Last Updated on STN: 11 Jan 1990

AB Two dimensional sodium dodecyl sulphate-polyacrylamide gel electrophoresis (2D SDS-PAGE) has been used to produce 'fingerprint' maps of the proteins from each of the 7 species of Eimeria which infect the chicken. All 7 species could be identified from their array of polypeptides but few differences were detected between strains of the same species. Alterations to the polypeptide array associated with the stage of **sporulation** of the **oocysts** were observed. Iodination of sporozoites, 2D SDS-PAGE, autoradiography and immunoblotting techniques were combined to identify polypeptides with a surface moiety and those which were antigenic. [The following species are discussed: E. **acervulina**, E. brunetti, E. **maxima**, E. **mitis**, E. necatrix, E. paraecox, E. **tenella**.].

L19 ANSWER 28 OF 40 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
ACCESSION NUMBER: 1987:158004 BIOSIS
DOCUMENT NUMBER: PREV198732076131; BR32:76131
TITLE: THE ASEXUAL DEVELOPMENT OF **PRECOCIOUS** LINES OF EIMERIA-SPP IN THE CHICKEN.
AUTHOR(S): MCDONALD V [Reprint author]; SHIRLEY M W
CORPORATE SOURCE: HOUGHTON POULTRY RES STN, HOUGHTON, HUNTINGDON, CAMBRIDGESHIRE, PE17 2DA, ENGLAND, UK
SOURCE: (1986) pp. 502-509. MCDOUGALD, L. R., L. P. JOYNER AND P. L. LONG (ED.). RESEARCH IN AVIAN COCCIDIOSIS; PROCEEDINGS OF THE GEORGIA COCCIDIOSIS CONFERENCE, GAINESVILLE, GA., USA, NOV. 18-20, 1985. IX+642P. UNIVERSITY OF GEORGIA COLLEGE OF AGRICULTURE: ATHENS, GA., USA. ILLUS. PAPER.
DOCUMENT TYPE: Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 28 Mar 1987
Last Updated on STN: 28 Mar 1987

L19 ANSWER 29 OF 40 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
ACCESSION NUMBER: 1987:26941 BIOSIS
DOCUMENT NUMBER: PREV198783016875; BA83:16875
TITLE: INVESTIGATIONS ON COCCIDIASIS IN THE DOMESTIC CHICKEN IN XIAMEN FUJIAN CHINA WITH SPECIAL REFERENCE TO THE LIFE CYCLE OF EIMERIA-**ACERVULINA** AND ITS PATHOLOGY.
AUTHOR(S): HUNG L [Reprint author]; LIN Y
CORPORATE SOURCE: PARASITOL RES LAB, XIAMEN UNIV
SOURCE: Wuyi Science Journal, (1985) Vol. 5, pp. 119-128. ISSN: 1001-4276.
DOCUMENT TYPE: Article
FILE SEGMENT: BA

LANGUAGE: CHINESE
ENTRY DATE: Entered STN: 14 Dec 1986
Last Updated on STN: 14 Dec 1986

AB During 1980-1982, a survey on the species of coccidia from the domestic chicken and the life cycle of Eimeria **acervulina** together with its pathology were carried out in Xiamen, South Fujian. Species were distinguished in region it parasitized, average **oocyst** size, shape index, **sporulation** time, prepatent period and pathogenicity. Nine species of Eimeria, namely E. **tenella**, E. necatrix, E. brunetti, E. **acervulina**, E. **maxima**, E. praecox, E. mivati and E. adenoides and one species of Isospora, I. gallinae were identified and their morphology were studied in detail. E. adenoides is a new record from chicken in China, and the other nine species are all new records in Fujian.

L19 ANSWER 30 OF 40 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2004-035049 [03] WPIDS
DOC. NO. CPI: C2004-011625
TITLE: Continuous culturing of obligate intracellular protozoa of Sporozoea in the asexual phase of development resulting in growth of merozoites in the host cell, useful in **vaccines** and assays for conditions caused by protozoan parasites.
DERWENT CLASS: B04 C06 D16
INVENTOR(S): ELLISON, S P
PATENT ASSIGNEE(S): (ELLI-I) ELLISON S P; (PATH-N) PATHOGENES INC; (SCHE) SCHERING-PLOUGH LTD
COUNTRY COUNT: 103
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003099325	A1	20031204	(200403)*	EN	40
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
US 2004018215	A1	20040129	(200413)		
AU 2003231818	A1	20031212	(200443)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003099325	A1	WO 2003-US16302	20030520
US 2004018215	A1 Provisional	US 2002-382428P	20020521
		US 2003-442661	20030520
AU 2003231818	A1	AU 2003-231818	20030520

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003231818	A1 Based on	WO 2003099325

PRIORITY APPLN. INFO: US 2002-382428P 20020521; US

2003-442661 20030520

AN 2004-035049 [03] WPIDS

AB WO2003099325 A UPAB: 20040112

NOVELTY - Continuous culturing of obligate intracellular protozoa of class Sporozoea in the asexual phase of development comprises providing a cell culture system comprising immortalized mammalian host cells suitable for growing Sporozoea species, where the obligate intracellular protozoan can infect birds, and contacting the host cells with an infectious stage of the Sporozoea species resulting in the growth of merozoites in the host cell.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a viable protozoa of class Sporozoea produced by the method cited above;

(2) an anti-protozoal **vaccine** composition comprising a protozoan of (1);

(3) a method of **vaccinating** an avian to elicit protective anti-protozoal immunity, comprising administering viable organisms produced by the method cited above to an avian in need, where the **number** of viable organisms is effective to elicit protective immunity in the avian;

(4) a cell culture system comprising immortalized phagocytic host ceils suitable for growing Sporozoea species, and a cell culture medium comprising an **amount** of a reducing agent effective to enhance survival of a Sporozoea species asexually reproducing life stage in indefinite cell culture relative to survival of a Sporozoea species cultured without the reducing agent;

(5) a **vaccine** composition of (2) comprising an adjuvant;

(6) a **vaccine** comprising a food composition admixed with the **vaccine** composition of (5);

(7) a method of screening for agents which destroy or inhibit the growth of protozoa of class Sporozoea, comprising culturing a Sporozoea species of interest by the method cited above, with and without contact with an agent to be screened, and detecting inhibition of growth or viability relative to growth in the absence of the agent of interest;

(8) a method for continuous culture of obligate intracellular protozoa in the asexual phase of development, comprising providing a cell culture system comprising immortalized bovine monocytes, where the immortalized bovine monocyte cells are able to incorporate the protozoa by phagocytosis, where the cell culture system comprises a culture media suitable for growth of the immortalized bovine monocytes and beta -mercaptoethanol in a concentration ranging from 0.01-0.5 mM, and contacting the host cells with an infectious stage of the protozoa under conditions effective for infection of the host cells, resulting in the growth of merozoites in the host cell, where the protozoa is a species of a genera selected from the group consisting of Eimeria, Isospora, Cystoisospora, and Cryptosporidium that infect avians; and

(9) a **vaccine** to **immunize** chickens or turkeys from one or more Eimeria species of protozoa, comprising a merozite of an avian Eimeria species, an **oocyst** that had been generated from a merozoite, or their **mixtures**, where the merozite had been propagated in a continuous culture of an immortalized mammalian phagocytic cell.

ACTIVITY - Protozoacide. Test details are described but nor results given.

MECHANISM OF ACTION - **Vaccine.**

USE - The methods and compositions of the present invention are useful for culturing sporocyst-forming protozoa of the class Sporozoea for use as **vaccines** and in assays for conditions caused by protozoan

parasites.
Dwg.0/0

L19 ANSWER 31 OF 40 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2003-721703 [68] WPIDS
DOC. NO. CPI: C2003-198592
TITLE: A new attenuated strain of the protoctist Eimeria **acervulina** produces non-pathogenic **oocysts** that are used to induce immunity to Coccidiosis in poultry.
DERWENT CLASS: B04 C06 D16
INVENTOR(S): DAVELAAR, F G
PATENT ASSIGNEE(S): (AMHP) WYETH
COUNTRY COUNT: 100
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003072044	A2	20030904	(200368)*	EN	29
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW					
US 2003170277	A1	20030911	(200382)		
AU 2003217670	A1	20030909	(200428)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003072044	A2	WO 2003-US5483	20030221
US 2003170277	A1 Provisional	US 2002-360088P	20020226
		US 2003-371914	20030221
AU 2003217670	A1	AU 2003-217670	20030221

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003217670	A1 Based on	WO 2003072044

PRIORITY APPLN. INFO: US 2002-360088P 20020226; US 2003-371914 20030221

AN 2003-721703 [68] WPIDS
AB WO2003072044 A UPAB: 20031022
NOVELTY - An isolated strain of protoctist, attenuated to produce non-pathogenic **oocysts** that induce an immune response against Coccidiosis in poultry, is new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:
(1) a poultry **vaccine** comprising non-pathogenic **oocysts** of an attenuated strain of Eimeria where the **oocysts** induce an immune response against Coccidiosis;
(2) preparing (M1) non-pathogenic **oocysts** of an Eimeria species capable of inducing an immune response to Coccidiosis in poultry, comprising attenuating a strain of Eimeria by serial passaging the strain at least nine times through specific pathogen free (SPF) birds;
(3) **oocysts** obtained by M1; and

(4) **immunizing** poultry against Coccidiosis, comprising administering at least 104 **oocysts**.

USE - The attenuated strain is used to induce immunity to Coccidiosis in poultry (claimed).

Dwg.0/0

L19 ANSWER 32 OF 40 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2003-300887 [29] WPIDS
DOC. NO. CPI: C2003-078534
TITLE: Producing protozoan oocysts from avian subjects, by infecting the subject with a protozoan, feeding the subject a diet having large unit particle size, and collecting feces comprising oocysts from the subject.
DERWENT CLASS: B04 C06 D16
INVENTOR(S): HUTCHINS, J E; TYCZKOWSKI, J K
PATENT ASSIGNEE(S): (HUTC-I) HUTCHINS J E; (TYCZ-I) TYCZKOWSKI J K; (EMBR-N) EMBREX INC
COUNTRY COUNT: 102
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003020917	A1	20030313	(200329)*	EN	53
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
US 2003143717	A1	20030731	(200354)		
EP 1421178	A1	20040526	(200435)	EN	
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
KR 2004021678	A	20040310	(200444)		
AU 2002329929	A1	20030318	(200452)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003020917	A1	WO 2002-US27668	20020829
US 2003143717	A1 Provisional	US 2001-316310P	20010830
		US 2002-232204	20020829
EP 1421178	A1	EP 2002-766186	20020829
		WO 2002-US27668	20020829
KR 2004021678	A	KR 2004-701369	20040130
AU 2002329929	A1	AU 2002-329929	20020829

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1421178	A1 Based on	WO 2003020917
AU 2002329929	A1 Based on	WO 2003020917

PRIORITY APPLN. INFO: US 2001-316310P 20010830; US 2002-232204 20020829
AN 2003-300887 [29] WPIDS

AB WO2003020917 A UPAB: 20030505
NOVELTY - Producing (M) protozoan oocysts from an avian subject, involves infecting an avian subject with a protozoan for a time sufficient for oocysts from the protozoan to be shed in the feces of infected subject, collecting feces comprising oocysts from infected subject, and feeding infected subject a diet having a large unit particle size for at least about one day prior to and during the collecting of feces.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) a composition (C) for the production of oocysts, comprises a peroxygen compound and/or organic acid, and has an acidic pH;

(2) a flotation medium (FM) for purifying protozoan oocysts, comprises a high-density, non-ionic solution, and a polycation or oil; and

(3) an aqueous composition (AC) for reducing aggregation among protozoan oocysts, comprises a compound selected from protein, peptide, amino acid, protein hydrolysate, anti-foaming agent, and their combination.

ACTIVITY - Protozoacide; Coccidiostatic.

MECHANISM OF ACTION - **Vaccine**.

No biological data given.

USE - (M) is useful for producing protozoan oocysts from an avian subject. (C) is useful for collecting protozoan oocysts in animal feces, by providing an animal infected with a protozoan, where the animals is shedding oocysts from the protozoan in its feces, and contacting feces comprising oocysts from the infected animal with the (C). The protozoan comprises a species from the genes Eimeria. The species is selected from E. **Maxima**, E. **mitis**, E. **tenella**, E. **acervulina**, E. brunetti, E. necatrix, E. praecox, E. mivati, and their combination. The animal is a bird, preferably a turkey or chicken. (C) is useful for **sporulating** protozoan **oocysts**, by providing a composition comprising protozoan **oocysts**, and **sporulating** the **oocysts** in (C) for a time and under conditions suitable for **sporulation**. The composition comprising protozoan **oocysts** comprises feces collected from animal infected with the protozoan. (C) is useful for sanitizing protozoan oocysts, by providing a preparation comprising protozoan oocysts and sanitizing the oocysts in (C) for a time and under conditions sufficient to achieve the desired level of sanitization of the preparation. The preparation contains essentially no detectable microbial contamination after sanitization which is carried out for 12-48 hours. FM is useful for purifying protozoan oocysts by flotation, by forming a suspension between FM and several protozoan oocysts, allowing the suspension to separate, and recovering protozoan oocysts from the separated suspension. The method further involves forming by admixing FM with several protozoan oocysts and allowing the suspension to separate by centrifugation. AC is useful for producing protozoan oocysts, by contacting a preparation of protozoan oocysts with AC that reduces aggregation among the oocysts. The contacting step follows the sanitizing step (claimed).

(M) and (C) are useful for manufacturing **vaccines**. (C) is useful for **immunizing** birds against coccidiosis either in ovo or post hatch.

ADVANTAGE - (C) allows easier debris removal, improved yields of the oocysts, and/or reduced production costs. (C) protects the oocysts from drying out, reduces the bioburden from the start of the collection period and provides high sporulation rates, and thus more easily disposed of than conventional media containing potassium dichromate.

Dwg.0/0

L19 ANSWER 33 OF 40 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2003-221605 [21] WPIDS

DOC. NO. CPI: C2003-056376
TITLE: New nucleic acid comprising a sequence encoding a 56 kDa or 82 kDa polypeptide from gametocytes of Eimera **maxima**, useful for preparing a **vaccine** against Eimera infection.
DERWENT CLASS: B04 C06 D16
INVENTOR(S): BELLI, S I; SMITH, N C; WALLACH, M
PATENT ASSIGNEE(S): (BELL-I) BELLI S I; (SMIT-I) SMITH N C; (WALL-I) WALLACH M
COUNTRY COUNT: 101
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003004683	A2	20030116	(200321)*	EN	112
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW					
EP 1432722	A2	20040630	(200443)	EN	
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
AU 2002316558	A1	20030121	(200452)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003004683	A2	WO 2002-US21233	20020703
EP 1432722	A2	EP 2002-746870	20020703
		WO 2002-US21233	20020703
AU 2002316558	A1	AU 2002-316558	20020703

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1432722	A2 Based on	WO 2003004683
AU 2002316558	A1 Based on	WO 2003004683

PRIORITY APPLN. INFO: US 2001-303699P 20010706
AN 2003-221605 [21] WPIDS
AB WO2003004683 A UPAB: 20030328
NOVELTY - A new isolated nucleic acid (N1) comprises a sequence encoding a 56 kDa (P1) or 82 kDa (P2) polypeptide from gametocytes of Eimera **maxima** or its homolog or complement.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(1) a vector comprising N1;
(2) a host cell comprising the vector of (1);
(3) a plasmid comprising N1;
(4) a transformed cell comprising N1;
(5) a method of producing a recombinant P1 or P2 from gametocytes of Eimera **maxima**;
(6) a recombinant polypeptide produced by the method of (5);
(7) a 30 kDa or 14 kDa protein from gametocytes of Eimera

maxima.having the N-terminal end given in the specification;
(8) a **vaccine** against E. **tenella**, E. **acervulina**, E. necatrix, E. praecox, E. **maxima**, E. **mitis** or E. brunetti, comprising N1, the plasmid of (3) or the polypeptide of (6);
(9) a method of **immunizing** a subject against infection by Eimera, or a microorganism expressing an immunologically cross-reactive antigen;
(10) a fertilized egg from an avian species having an air sac, where the air sac is inoculated with the **vaccine**;
(11) a method of conferring upon a newborn subject of an avian species maternal immunity against infection by E. **tenella**, E. **acervulina**, E. necatrix, E. praecox, E. **maxima**, E. **mitis** or E. brunetti, or a microorganism expressing an immunologically-cross reactive antigen, comprising administering to the mother of the subject at a suitable time prior to laying of a fertilized egg the **vaccine** of (8); and
(12) a method of reducing the oocyts in feces from a newborn subject of an avian species.
ACTIVITY - Antiparasitic.
No biological data given.
MECHANISM OF ACTION - **Vaccine**.
No biological data given.
USE - The nucleic acid is useful for preparing a **vaccine** against Eimera **tenella**, E. **acervulina**, E. necatrix, E. praecox, E. **maxima**, E. **mitis** or E. brunetti infection (claimed).
Dwg.0/20

L19 ANSWER 34 OF 40 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 1999-633639 [54] WPIDS
DOC. NO. CPI: C1999-185013
TITLE: **Vaccine** useful for preventing Marek's disease, mycoplasma, Eimeria or Salmonella infection.
DERWENT CLASS: B04 C06 D16
INVENTOR(S): JORGENSEN, W K; RICHARDS, D G; STEWART, N P
PATENT ASSIGNEE(S): (EIME-N) EIMERIA PTY LTD; (RURA-N) RURAL IND RES & DEV CORP; (QUEE-N) STATE QUEENSLAND DEPT PRIMARY INDS
COUNTRY COUNT: 87
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9950387	A1	19991007	(199954)*	EN	19
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW					
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW					
AU 9931288	A	19991018	(200010)		
EP 1068293	A1	20010117	(200105)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
JP 2002509941	W	20020402	(200225)		17
AU 751262	B	20020808	(200263)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9950387	A1	WO 1999-AU232	19990330
AU 9931288	A	AU 1999-31288	19990330
EP 1068293	A1	EP 1999-912985	19990330
		WO 1999-AU232	19990330
JP 2002509941	W	WO 1999-AU232	19990330
		JP 2000-541275	19990330
AU 751262	B	AU 1999-31288	19990330

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9931288	A	Based on	WO 9950387
EP 1068293	A1	Based on	WO 9950387
JP 2002509941	W	Based on	WO 9950387
AU 751262	B	Previous Publ.	AU 9931288
		Based on	WO 9950387

PRIORITY APPLN. INFO: AU 1998-2683 19980330
AN 1999-633639 [54] WPIDS
AB WO 9950387 A UPAB: 19991221
NOVELTY - **Vaccine** (I) comprising at least 1 of Eimeria **maxima** AR73/97, E. **tenella** ARI-11/98, E. **acervulina** ARI-77/97, E. tenelia ARI-11/98, E. necatrix MCK01 and/or E. necatrix ARI-MEDNEC3 multiply 8, or their antigens in association with a carrier or excipient, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an Eimeria strain selected from the strains listed above.

USE - The **vaccine** is used to **vaccinate** poultry against Eimeria infection. The **vaccine** may also be used to protect poultry against Marek's disease, mycoplasma or salmonella infection.

ADVANTAGE - The **vaccine** strains of E. **maxima**, E. **acervulina**, E. **tenella** and E. necatrix, are strongly protective against virulent strains of their respective species.

Dwg.0/0

L19 ANSWER 35 OF 40 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 1999-205120 [17] WPIDS
DOC. NO. CPI: C1999-059746
TITLE: New triazine derivatives - useful as anti-protozoal agents for treating sporozoasis in vertebrates or insects.
DERWENT CLASS: B02 B03 C02
INVENTOR(S): AOKI, I; HAYASHI, T; MIKI, H
PATENT ASSIGNEE(S): (TAKE) TAKEDA CHEM IND LTD; (TAKE) TAKEDA SCHERING-PLOUGH ANIMAL HEALTH KK
COUNTRY COUNT: 82
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9911634	A1	19990311	(199917)*	EN	121
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW					
W: AL AM AU AZ BA BB BG BR BY CA CN CU CZ EE GE HR HU ID IL IS JP KG KR KZ LC LK LR LT LV MD MG MK MN MX NO NZ PL RO RU SG SI SK SL TJ					

	TM	TR	TT	UA	US	UZ	VN	YU
AU 9888854			A	19990322	(199931)			
JP 11152277			A	19990608	(199933)		45	
CN 1263526			A	20000816	(200055)			
US 6294536			B1	20010925	(200158)			
TW 450964			A	20010821	(200239)			

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9911634	A1	WO 1998-JP3796	19980827
AU 9888854	A	AU 1998-88854	19980827
JP 11152277	A	JP 1998-243576	19980828
CN 1263526	A	CN 1998-807154	19980827
US 6294536	B1	WO 1998-JP3796	19980827
		US 2000-445159	20000301
TW 450964	A	TW 1998-114144	19980827

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9888854	A	Based on	WO 9911634
US 6294536	B1	Based on	WO 9911634

PRIORITY APPLN. INFO: JP 1997-234819 19970829

AN 1999-205120 [17] WPIDS

AB WO 9911634 A UPAB: 19990503

NOVELTY - Triazine derivatives are new. DETAILED DESCRIPTION - Triazine derivatives of formula (I) and their salts are new: ring H = optionally substituted aromatic heterocyclic or alicyclic hydrocarbon group; X, Y = a bond, O, S(O)m, NR8, CO or optionally substituted methylene group; m = 0-2; R8 = H, alkyl or acyl; A-B- = N=CH, CH=N, N=N or CH=CH; R1 = H, halo, optionally substituted alkyl that may bonded through heteroatom or acyl group; R2, R3 = H, halo or optionally substituted alkyl; R4 = H or halo; R5 = H, optionally substituted alkyl or acyl; R6, R7 = H or, together, may form a chemical bond; and D = CH2 or CO.

USE - Used to prevent or treat sporozoasis in vertebrates or insects (claimed) and to control parasitic protozoa such as coccidia encountered in animal breeding (vertebrates, such as mammals, fowl, fish and insects) to increase productivity in animal production e.g. productivity of meat, milk, fur, skin, eggs, honey as well as the breedability of animals. Active against phylum Apicomplexa e.g. protozoa of the family Eimeriidae, such as the genus Eimeria (E. **acervulina**, E. adenoides, E. alabahmensis, E. arloingi, E. auburnenesis, E. bovis, E. brunetti, E. canis, E. contorta, E. ellipsoidales, E. falciformis, E. gallopavonis, E. hagani, E. intestinalis, E. magna, E. **maxima**, E. meleagridis, E. meleagrimitis, E. **mitis**, E. mivati, E. necatrix, E. ninakohlyakimovae, E. ovis, E. parva, E. pavonis, E. perforans, E. piricormis, E. praecox, E. stiedai, E. suis, E. **tenella**, E. truncata, E. zuernii), protozoa of the genus Isospora (I. belli, I. canis, I. felis, I. rivolta, I. suis), Cryptos poridium, Toxoplamsa gondii, protozoa of the family Sarcocystidae (Sarcocystis bovicanis, S. bovihominis, S. ovicanis, S. ovifelis, S. suihominis), protozoa of the genus Leucocytozoon (L. simondi, L. caulleryi), protozoa of the family Plasmodiidae (Plasmodium berghei, P. falciparum, P. malariae, P. ovale), protozoa of the subclass Piroplasma, protozoa of the genus Babesia (B. argentina, B. vocis, B. canis), protozoa of the genus Theileria (T.

parva), Adeleina, Hepatozoon canis, protozoa of the subphylum Myxopsora, protozoa of the subphylum Microspora, protozoa of the genus Glugea and protozoa of the genus Nosema. Useful for prophylaxis and treatment in vertebrate animals such as mammals (cattle, horse, hog, sheep, goat, camel, buffalo, donkey, rabbit, deer, reindeer, mink, chinchilla, raccoon, mouse, rat, guinea pig, golden hamster, dog, cat, human), fowl (chicken, quail, goose, turkey, duck, mallard, pigeon), fresh and sea-water fish (carp, eel, trout, sweet fish, catfish, salmon, sea bream, yellowtail, tiger puffer, tongue sole, flatfish) or insects (bees). ACTIVITY - Anti-protozoal. The potency of (I) against coccidia was tested in 9-day-old, male, Leghorn chicks in groups of three. The birds in all test groups except uninfected and untreated controls were inoculated orally with 5 multiply 104 **sporulating oocysts** of a laboratory strain of Eimeria **tenella** per bird. As the test drug, (I) was dried and pulverized then added to the standard **ration** (SDL NO. 1, Nippon Formula Feed (RTM)) at a level of 31.3 ppm and the medicated diet given ad libitum for 9 days from 24 hours before infection to day 8 after infection. During the period, the chicks were weighed and bloody droppings counted. In addition, the **number** of oocysts was determined for evaluation of anticoccidial efficacy. The relative body weight gain (%) and the **number** of bloody droppings were 100 and 0 for the non-infected/treatment group, and 78.9 and 5.1 for the infected untreated control group, respectively. For test compounds, relative body weight gain was 97 (n=1), 98 (n=3), 99 (n=1), 100 (n=5), 101 (n=2), 102 (n=3), 103 (n=2) and 104 (n=1), **number** of bloody droppings was 0 in all eighteen compounds. The results show that, compared with treated control, the groups treated with (I) showed increased body weight gains indicating excellent anticoccidial activity. MECHANISM OF ACTION - None given.

ADVANTAGE - Low in toxicity and retention tendency in animals, have very high biological effects on strains resistant to conventional drug and excellent in terms of safety.

Dwg.0/0

L19 ANSWER 36 OF 40 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 1997-051902 [05] WPIDS
DOC. NO. CPI: C1997-017180
TITLE: In ovo **vaccination** of domesticated birds against coccidiosis - especially chicken or turkey, by live Eimeria sporozoite(s) or merozoite(s).
DERWENT CLASS: B04 C06 D16
INVENTOR(S): EVANS, N A; FINDLY, R C; WEBER, F H; FINDLY, C R; FINDLY, R; EVANS, N; WEBER, F
PATENT ASSIGNEE(S): (PFIZ) PFIZER INC; (EVAN-I) EVANS N A; (FIND-I) FINDLY R C; (WEBE-I) WEBER F H
COUNTRY COUNT: 36
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9640234	A1	19961219	(199705)*	EN	20
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE					
W: CA FI JP MX US					
AU 9654782	A	19961219	(199708)		
CZ 9601643	A3	19970312	(199717)		
HU 9601554	A2	19970328	(199750)		
KR 97000245	A	19970121	(199801)		
SK 9600728	A3	19971105	(199803)		
ZA 9604726	A	19980225	(199813)		19

EP 831897	A1	19980401 (199817)	EN	
R: AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE				
FI 9704439	A	19980127 (199817)		
BR 9602667	A	19980422 (199822)		
NZ 286754	A	19980626 (199831)		
JP 10506920	W	19980707 (199837)		20
AU 694872	B	19980730 (199842)		
RO 113716	B1	19981030 (199904)		
MX 9709868	A1	19980301 (200002)		
RU 2125890	C1	19990210 (200021)		
KR 167417	B1	19990115 (200038)		
IL 118490	A	20000726 (200051)		
JP 3120860	B2	20001225 (200102)		8
CN 1145168	A	19970319 (200104)		
EP 831897	B1	20010328 (200118)	EN	
R: AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE				
DE 69520509	E	20010503 (200132)		
ES 2155129	T3	20010501 (200136)#		
TW 430558	A	20010421 (200158)		
SK 282004	B6	20011008 (200163)		
US 2002031530	A1	20020314 (200222)		
CA 2223700	C	20020507 (200239)	EN	
US 2002146435	A1	20021010 (200269)		
CZ 290810	B6	20021016 (200279)		
US 6500438	B2	20021231 (200305)		
PH 1199653252	B1	20020416 (200382)		
MX 214389	B	20030523 (200418)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9640234	A1	WO 1995-IB446	19950607
AU 9654782	A	AU 1996-54782	19960606
CZ 9601643	A3	CZ 1996-1643	19960606
HU 9601554	A2	HU 1996-1554	19960606
KR 97000245	A	KR 1996-20174	19960605
SK 9600728	A3	WO 1995-IB446	19950607
		SK 1996-728	19950607
ZA 9604726	A	ZA 1996-4726	19960606
EP 831897	A1	EP 1995-918720	19950607
		WO 1995-IB446	19950607
FI 9704439	A	WO 1995-IB446	19950607
		FI 1997-4439	19971205
BR 9602667	A	BR 1996-2667	19960605
NZ 286754	A	NZ 1996-286754	19960606
JP 10506920	W	WO 1995-IB446	19950607
		JP 1996-520060	19950607
AU 694872	B	AU 1996-54782	19960606
RO 113716	B1	RO 1996-1180	19960607
MX 9709868	A1	MX 1997-9868	19971208
RU 2125890	C1	RU 1996-111004	19960606
KR 167417	B1	WO 1995-IB446	19950607
		KR 1996-20174	19960605
IL 118490	A	IL 1996-118490	19960530
JP 3120860	B2	WO 1995-IB446	19950607
		JP 1996-520060	19950607
CN 1145168	A	CN 1996-110384	19960606
EP 831897	B1	EP 1995-918720	19950607

		WO 1995-IB446	19950607
DE 69520509	E	DE 1995-620509	19950607
		EP 1995-918720	19950607
		WO 1995-IB446	19950607
ES 2155129	T3	EP 1995-918720	19950607
TW 430558	A	TW 1996-105818	19960516
SK 282004	B6	SK 1996-728	19960606
US 2002031530	A1	WO 1995-IB446	19950607
		US 1997-973133	19971201
CA 2223700	C	CA 1995-2223700	19950607
		WO 1995-IB446	19950607
US 2002146435	A1 Cont of	WO 1995-IB446	19950607
	Cont of	US 1997-973133	19971201
		US 2002-94436	20020308
CZ 290810	B6	CZ 1996-1643	19960606
US 6500438	B2	WO 1995-IB446	19950607
		US 1997-973133	19971201
PH 1199653252	B1	PH 1996-53252	19960603
MX 214389	B	MX 1997-9868	19971208

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 831897	A1 Based on	WO 9640234
JP 10506920	W Based on	WO 9640234
AU 694872	B Previous Publ.	AU 9654782
JP 3120860	B2 Previous Publ.	JP 10506920
	Based on	WO 9640234
EP 831897	B1 Based on	WO 9640234
DE 69520509	E Based on	EP 831897
	Based on	WO 9640234
ES 2155129	T3 Based on	EP 831897
SK 282004	B6 Previous Publ.	SK 9600728
CA 2223700	C Based on	WO 9640234
CZ 290810	B6 Previous Publ.	CZ 9601643
US 6500438	B2 Based on	WO 9640234

PRIORITY APPLN. INFO: WO 1995-IB446 19950607
AN 1997-051902 [05] WPIDS
AB WO 9640234 A UPAB: 19970228

Vaccination of a domesticated bird against coccidiosis by in ovo admin. of live Eimeria sporozoites and/or merozoites during the final quarter of incubation.

Pref. total dosages are in the ranges of 10-106, 103-106 or 102-105 sporozoites and/or merozoites obtained, when the domesticated bird is a chicken, from two or more species of Eimeria from the group E. **tenella**, E. **acervulina**, E. **maxima**, E. necatrix, E. **mitis**, E. praecox and E. brunetti. In the case that the bird is a turkey the sporozoites and/or merozoites are obtained from two or more species of Eimeria from the group E. meleagrimitis, E. adenoeides, E. gallopavonis, E. dispersa, E. meleagridis, E. innocua and E. subrotunda. Administration is by in ovo injection and an immune stimulant may also be administered either simultaneously or at any other time during incubation. Sporozoites are purified to remove sporocysts and **oocysts**. The domesticated bird may also be a game bird, duck or ratite.

USE - The method is used to **vaccinate** domesticated birds against coccidiosis. Total **number** of sporozoites and/or

merozoites in the ranges 10-106, 103-106 or 102-105, from two or more species of Eimeria, administered by in ovo injection.
ADVANTAGE - Dosage is more accurately controlled by in ovo admin. than previously used oral methods.
Dwg.0/0

L19 ANSWER 37 OF 40 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 1997-051901 [05] WPIDS
DOC. NO. CPI: C1997-017179
TITLE: In ovo **vaccination** of domesticated birds against coccidiosis - especially chicken or turkey, by live Eimeria sporocyst(s) or **oocysts**.
DERWENT CLASS: B04 C06 D16
INVENTOR(S): EVANS, N A; FINDLY, R C; WEBER, F H; FINDLY, R; FINDLY, C R
PATENT ASSIGNEE(S): (PFIZ) PFIZER INC; (EVAN-I) EVANS N A; (FIND-I) FINDLY R C; (WEBE-I) WEBER F H
COUNTRY COUNT: 34
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9640233	A1	19961219	(199705)*	EN	14
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE					
W: CA FI JP MX US					
AU 9654783	A	19961219	(199708)		
CZ 9601642	A3	19970312	(199717)		
SK 9600727	A3	19970806	(199740)		
HU 9601553	A2	19970328	(199750)		
KR 97000244	A	19970121	(199801)		
NZ 286753	A	19980126	(199810)		
ZA 9604724	A	19980225	(199813)		13
FI 9704438	A	19980114	(199814)		
EP 831896	A1	19980401	(199817)	EN	
R: AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE					
JP 10506919	W	19980707	(199837)		14
RO 113715	B1	19981030	(199904)		
AU 704028	B	19990415	(199926)		
MX 9709870	A1	19980301	(200002)		
RU 2126267	C1	19990220	(200022)		
IL 118489	A	20000726	(200051)		
KR 190733	B1	19990601	(200056)		
CN 1145167	A	19970319	(200104)		
EP 831896	B1	20010627	(200137)	EN	
R: AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE					
DE 69521533	E	20010802	(200151)		
TW 429150	A	20010411	(200157)		
ES 2158108	T3	20010901	(200161)#		
SK 282436	B6	20020205	(200213)		
US 2002090378	A1	20020711	(200248)		
CA 2223699	C	20020702	(200253)	EN	
US 6495146	B1	20021217	(200307)		
US 6627205	B2	20030930	(200367)		
MX 214390	B	20030523	(200418)		
JP 3534774	B2	20040607	(200437)		5

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

WO 9640233	A1	WO 1995-IB445	19950607
AU 9654783	A	AU 1996-54783	19960606
CZ 9601642	A3	CZ 1996-1642	19960606
SK 9600727	A3	WO 1995-IB445	19950607
		SK 1996-727	19950607
HU 9601553	A2	HU 1996-1553	19960606
KR 97000244	A	KR 1996-20173	19960605
NZ 286753	A	NZ 1996-286753	19960606
ZA 9604724	A	ZA 1996-4724	19960606
FI 9704438	A	WO 1995-IB445	19950607
		FI 1997-4438	19971205
EP 831896	A1	EP 1995-918719	19950607
		WO 1995-IB445	19950607
JP 10506919	W	WO 1995-IB445	19950607
		JP 1996-520059	19950607
RO 113715	B1	RO 1996-1179	19960607
AU 704028	B	AU 1996-54783	19960606
MX 9709870	A1	MX 1997-9870	19971208
RU 2126267	C1	RU 1996-111009	19960606
IL 118489	A	IL 1996-118489	19960530
KR 190733	B1	WO 1995-IB445	19950607
		KR 1996-20173	19960605
CN 1145167	A	CN 1996-110383	19960606
EP 831896	B1	EP 1995-918719	19950607
		WO 1995-IB445	19950607
DE 69521533	E	DE 1995-621533	19950607
		EP 1995-918719	19950607
		WO 1995-IB445	19950607
TW 429150	A	TW 1996-105816	19960516
ES 2158108	T3	EP 1995-918719	19950607
SK 282436	B6	SK 1996-727	19960606
US 2002090378	A1 Cont of	WO 1995-IB445	19950607
	Cont of	US 1997-973151	19971201
		US 2002-94087	20020308
CA 2223699	C	CA 1995-2223699	19950607
		WO 1995-IB445	19950607
US 6495146	B1	WO 1995-IB445	19950607
		US 1997-973151	19971201
US 6627205	B2 Cont of	WO 1995-IB445	19950607
	Cont of	US 1997-973151	19971201
		US 2002-94087	20020308
MX 214390	B	MX 1997-9870	19971208
JP 3534774	B2	WO 1995-IB445	19950607
		JP 1996-520059	19950607

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 831896	A1 Based on	WO 9640233
JP 10506919	W Based on	WO 9640233
AU 704028	B Previous Publ.	AU 9654783
EP 831896	B1 Based on	WO 9640233
DE 69521533	E Based on	EP 831896
	Based on	WO 9640233
ES 2158108	T3 Based on	EP 831896
SK 282436	B6 Previous Publ.	SK 9600727
CA 2223699	C Based on	WO 9640233

Search completed by David Schreiber x22526

US 6495146	B1 Based on	WO 9640233
US 6627205	B2 Cont of	US 6495146
JP 3534774	B2 Previous Publ.	JP 10506919
	Based on	WO 9640233

PRIORITY APPLN. INFO: WO 1995-IB445 19950607
AN 1997-051901 [05] WPIDS
AB WO 9640233 A UPAB: 19970228

Vaccination of a domesticated bird against coccidiosis by in ovo admin. of live Eimeria sporocysts and/or **oocysts** during the final quarter of incubation.

Pref. total dosages are in the ranges 102-108 (chicken or turkey), 102-105, 105-107, 104-106 or 103-106 sporocysts and/or **oocysts** and obtained when the domesticated bird is a chicken, from two or more species of Eimeria from the group E. **tenella**, E. **acervulina**, E. **maxima**, E. necatrix, E. **mitis**, E. praecox and E. brunetti. In the case that the bird is a turkey the sporocysts and/or **oocysts** are obtained from two or more species of Eimeria from the group E. meleagrimitis, E. adenoeides, E. gallopavonis, E. dispersa, E. meleagridis, E. innocua and E. subrotunda. Administration is by in ovo injection and an immune stimulant may also be administered either simultaneously or at any other time during incubation. Sporocysts may be purified to remove **oocysts**. The domesticated bird may also be a game bird, duck or ratite.

USE - The method is used to **vaccinate** domesticated birds against coccidiosis. Total **number** of sporocysts and/or **oocysts** in the ranges 102-108, 102-105, 105-107, 104-106 or 103-106, from two or more species of Eimeria, administered by in ovo injection.

ADVANTAGE - Dosage is more accurately controlled by in ovo admin. than previously used oral methods.

Dwg.0/0

L19 ANSWER 38 OF 40 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 1990-248416 [33] WPIDS
DOC. NO. CPI: C1990-107261
TITLE: Glyco lipid linked, membrane associated protein **immunogen** - from Eimeria species, useful in **vaccines** for protecting poultry against coccidiosis.
DERWENT CLASS: B04 C03 D16
INVENTOR(S): GURNETT, A M; ST, JOHN CRANE M; TURNER, M J; STJOHNCRAN, M; CRANE, M S J
PATENT ASSIGNEE(S): (MERI) MERCK & CO INC
COUNTRY COUNT: 12
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 382531	A	19900816	(199033)*		
R: CH DE FR GB IT LI NL					
AU 9049710	A	19900816	(199040)		
CA 2009609	A	19900810	(199043)		
JP 02264731	A	19901029	(199049)		
ZA 9000976	A	19901031	(199049)		
NZ 232372	A	19930428	(199320)		
AU 637080	B	19930520	(199327)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 382531	A	EP 1990-301340	19900208
JP 02264731	A	JP 1990-29754	19900213
ZA 9000976	A	ZA 1990-976	19900209
NZ 232372	A	NZ 1990-232372	19900205
AU 637080	B	AU 1990-49710	19900209

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 637080	B Previous Publ.	AU 9049710

PRIORITY APPLN. INFO: US 1989-309644 19890210
AN 1990-248416 [33] WPIDS
AB EP 382531 A UPAB: 19930928
Pure glycolipid-linked, membrane-associated protein **immunogens** (A) from Eimeria **oocysts, sporulate oocysts** and sporozoites are new. (A) are able to **immunise** poultry against coccidiosis. Also new are the E. **tenella** (A) containing at least the amino acid sequences (I) or (II) and their microheterogenous or subunit **immunogens**. X-Ala-Pro-Ser-Ala-Ser-Lys-lys --Thr-Thr-Glu-X-Leu-Pro-X-X-Asn-Ala (I) (Glu or Gly)-Ser-(Gly or Asn)-Pro-Pro-Thr-Ala-Glum Asp-lys-Thr-X-Ala-X-Leu-Pro (II); X = unidentified residue.

The glycolipid portion of (A) will bind to anti-CRD (cross-reacting determinant) antibody after lipase treatment. (A) is derived from the Eimeria species **acervulina**, mivati, **mitis**, praecox, hagani, nactrix, **maxima**, burnetti or especially **tenella**.

USE - (A) are used in **vaccines** protective against Eimeria infections. Poultry are inoculated orally or parenterally, or (for embryos) through the eggshell. The pref. dose is 0.1-10 micro g, opt. formulated with usual adjuvants such as alum ppte. @
0/0

L19 ANSWER 39 OF 40 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 1988-051616 [08] WPIDS
CROSS REFERENCE: 1992-325508 [40]
DOC. NO. CPI: C1988-022869
TITLE: Attenuated anticoccidial **vaccine** - containing live attenuated **precocious** lines of eimeria **acervulina**, eimeria **maxima** and eimeria **tenella**.
DERWENT CLASS: B04 C03 D16
INVENTOR(S): MCDONALD, V; SHIRLEY, M W
PATENT ASSIGNEE(S): (NATR) NAT RES DEV CORP; (BRTE-N) BRITISH TECHNOLOGY GROUP LTD; (BRTE-N) BRITISH TECHNOLOGY GROUP PLC
COUNTRY COUNT: 9
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 256878	A	19880224	(198808)*	EN	16
R: DE ES FR GB IT NL					
JP 63099019	A	19880430	(198823)		
US 5055292	A	19911008	(199143)		10
CA 1300013	C	19920505	(199223)		

EP 256878	B1 19930414	(199315)	EN	24
R: DE ES FR GB IT NL				
DE 3785404	G 19930519	(199321)		
ES 2054679	T3 19940816	(199434)		
JP 10291938	A 19981104	(199903)		12
JP 3020226	B2 20000315	(200018)		16

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 256878	A	EP 1987-307267	19870817
JP 63099019	A	JP 1987-203238	19870817
US 5055292	A	US 1990-506538	19900409
CA 1300013	C	CA 1987-544636	19870817
EP 256878	B1	EP 1987-307267	19870817
DE 3785404	G	DE 1987-3785404	19870817
		EP 1987-307267	19870817
ES 2054679	T3	EP 1987-307267	19870817
JP 10291938	A Div ex	JP 1987-203238	19870817
		JP 1998-269	19870817
JP 3020226	B2	JP 1987-203238	19870817

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 3785404	G Based on	EP 256878
ES 2054679	T3 Based on	EP 256878
JP 3020226	B2 Previous Publ.	JP 63099019

PRIORITY APPLN. INFO: GB 1986-20059 19860818; GB 1986-29475 19861210

AN 1988-051616 [08] WPIDS

CR 1992-325508 [40]

AB EP 256878 A UPAB: 20000412

An attenuated anticoccidial **vaccine** contains live attenuated **precocious** lines of Eimeria **acervulina**, Eimeria **maxima** and Eimeria **tenella**, the **number** of **sporulated oocysts** of each separate Eimeria line present per **100 sporulated oocysts** of Eimeria **acervulina** being for E. **maxima** 15-30 and for E. **tenella** 70-110.

Also claimed is a live **vaccine** for use in combating coccidiosis in chickens comprising an effective concentration of live **sporulated oocysts** of a strain of E. **acervulina** having a prepatent time in thickens between 60 and 84 hrs. of a strain of E. **maxima** having a prepatent time in chickens of 80-120 hrs. and of a strain of E. **tenella** having a prepatent time in chickens of 90-125 hrs.

Also claimed is an attenuated **precocious** Eimeria strain selected from E. **acervulina** ECACC 86072203, E. brunetti ECACC 86072204, E. brunetti ECACC 86112013, E. **maxima** ECACC 86112011, E. **maxima** ECACC 86112012, E. **mitis** ECACC 86072206, E. necatrix ECACC 86072202, E. praecox ECACC 86072205 and E. **tenella** ECACC 86072201 and **precocious** attenuated **immunogenic** mutants and variants.

USE/ADVANTAGE - Attenuation of the pathogenicity of the parasites is achieved by repeated passage in chickens with selection for early

appearance of **oocysts**. Populations can be selected with greatly reduced prepatent times and greatly reduced pathogenicity. The lines and variants can be used for **vaccinating** chickens against coccidial infection, partic. for treating fowl's intended for breeding and the production of heavy broilers.
Dwg.0/0

ABEQ EP 256878 B UPAB: 19930923
An attenuated anticoccidial **vaccine** containing live attenuated **precocious** lines of Eimeria **acervulina**, Eimeria **maxima** and Eimeria **tenella**, the **number** of **sporulate oocysts** of each separate Eimeria line present per **100 sporulate oocysts** of Eimeria **acervulina** being for Eimeria **maxima** 15-30 and for Eimeria **tenella** 70-110.
0/0

ABEQ US 5055292 A UPAB: 19930923
Poultry coccidiosis **vaccine** comprises a mixt. of live attenuated strains of Eimeria **sporulate oocysts**, dispersed with the usual carriers and opt. additives. The **sporulate oocysts** are obtd. from Eimeria **acervulina** (pre-patient time 60-84 h in chickens). Eimeria **maxima** (pre-patient time 80-120 h) Eimeria tanella (pre-patient time 90-125 h) Eimeria necatrix (pre-patient time 90-126 h), Eimeria **mitis** (pre-patient time 60-84 h) Eimeria brunetti (pre-patient time 70-110 h) and Eimeria praecox (pre-patient time 44-75 h).
USE - The prods. are effective in protecting chickens from cocidiosis infection. @

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ACCESSION NUMBER: 2004:22177 AGRICOLA
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TITLE: **Immunization** of broiler chicks by in ovo injection of infective stages of Eimeria.
AUTHOR(S): Weber, F.H.; Genteman, K.C.; LeMay, M.A.; Lewis, D.O. Sr; Evans, N.A.
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AB **Immunization** of chickens by in ovo injection of infective stages of 5 species of Eimeria was investigated. Fertile Hubbard x Petersen broiler chicken eggs were injected through the air cell on d 18 of incubation with oocysts of E. **acervulina**, E. **maxima**, E. **mitis**, E. praecox, or E. brunetti. Injected doses of all species ranged from 1 x 10(2) to 1 x 10(6) **sporulated oocysts** per egg. Chicks receiving **oocysts** in ovo shed oocysts posthatch. After 2 wk in wire-floored cages, birds were given a challenge infection with the homologous Eimeria species. Chicks **immunized** by in ovo injection of oocysts had significantly reduced lesion scores, improved weight gain, or reduced oocyst output compared with their nonimmunized counterparts. In additional studies, eggs were injected with 1 x 10(5) sporozoites of E. **tenella**, E. **maxima**, or E. **acervulina** per egg. Sporozoites of E.

acervulina were not infective for chick embryos when administered in phosphate-buffered saline, but if sporozoites were suspended in tissue culture medium when injected in ovo, hatched chicks shed oocysts with peak output occurring 3 to 4 d posthatch. Sporozoites of E. **maxima** and E. **tenella** were infective for 18-d-old embryos regardless of the vehicle. The results demonstrate that **immunization** of broiler chickens against several species of coccidia by in ovo injection of oocysts is feasible. The infectivity of sporozoites for 18-d-old chick embryos varied depending on the species of Eimeria and the vehicle in which the sporozoites were suspended prior to injection.